TULANE UNIVERSITY

School of Medicine

Department of Medicine

Seamen's Memorial Research Laboratory
USPHS Hospital
210 State Street
NEW ORLEANS, LA. 70118

November 18, 1969

Dr. Joshua Lederberg
Dept. Genetics
Stanford University School of Medicine
Palo Alto, California 94304

Dear Dr. Lederberg:

I have run across your article "Many 'Accepted' Additives May be Cyclamate's Equal" in the Washington Post, October 25, 1969, p. A13. The purpose of this letter is to call your attention to some nonsense which unfortunately found its way into your article.

You state in paragraph 4 that "There is no particular rationale for banning an additive on the basis that it can be shown to induce tumors in some experimental animal at high doses when we know nothing of the way the additive works". I have a very hard time seeing why we have to know the mechanism of its carcinogenic action for banning such an additive from human consumption, once we know that it is carcinogenic.

While I do not believe it is really necessary, yet it may be a better part of wisdom to recall here some of the logical bases of animal testing and the ground for extrapolating the results to humans. The purpose of testing any particular compound for carcinogenic activity, from the human safety standpoint, is to find out whether it is or isn't carcinogenic in mammalian species. Since for obvious reasons we cannot test in humans, testing in experimental animals (preferably in several species, by several routes of administration and at more than one dose level) is the best approximation available for evaluating the degree of harmlessness of a proposed additive. Evidently, this involves extrapolation from animals to humans. Yet isn't it wiser to remove from human mass consumption a compound which has been shown to be carcinogenic in some animal species, not because it already produced tumors in humans but because there is a good likelihood that it might. Society follows the same logical basis in sequestering individuals, judged criminally insane, in specially guarded asylums,

not because they have already committed a crime but because there is a good likelihood that they will.

I hope you will not take it as a personal affront but I am doubly worried that that unfortunate sentence might acquire the authority of a quotation from the Bible because vested interests—who might someday want to use it as a shield at some hearings—feel that it is backed by your scientific stature. It is far from me to take the audacity to ask you to "recant", but please...please check more carefully texts, destined for public consumption, coming out under your name. I know, we all have to become more involved in public life, but there is always a danger that we might overextend ourselves at some point.

I take this opportunity to recall to you a colorful cocktail party we both attended at Harold Deutsch's house in Madison in 1954.

With kindest regards, I am,

Sincerely,

Joseph C. Arcos, D. Sc. Professor of Medicine (Biochemistry)

Fosoph trees

JCA/gm